

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI
HATTIESBURG DIVISION**

ROY MCSWAIN

PLAINTIFF

VERSUS

CIVIL ACTION NO. 2:08cv136KS-MTP

**SUNRISE MEDICAL, INC., PLANET MOBILITY.COM,
INC., QUICKIE DESIGNS, INC., AND JOHN DOES 1-10**

DEFENDANTS

MEMORANDUM OPINION AND ORDER

This cause is before the Court on a Motion *In Limine* to Strike Expert Opinions of Roger Link [Doc. # 61] (November 16, 2009) and memorandum in support [Doc. # 62], filed by Defendants Sunrise Medical, Inc. and Quickie Designs, Inc. (collectively “Sunrise”). The Motion is opposed by Plaintiff Roy McSwain [Docs. # 71 & 72]. The court, having reviewed the motion, the responses, the rebuttal, the pleadings and exhibits on file and being otherwise fully advised in the premises, finds that the motion should be granted in part, denied in part, and the Court reserves judgment in part.

I. BACKGROUND

In February 2006, Plaintiff Roy McSwain ordered a Quickie LXI custom wheelchair via telephone from Planetmobility.com. After receiving the order, Planetmobility.com contacted Sunrise Medical, Inc. to build the new wheelchair to order and ship it directly to McSwain.

When the wheelchair was delivered in March 2006, McSwain immediately noticed that it did not have anti-tip tubes like the Quickie 2 wheelchair he had been using since 1994. He also noticed that the front wheels were solid instead of the pneumatic front casters he ordered. His

son, Jeremy, who helped him unpack and set up the new wheelchair, stated in his deposition that his father not only noticed the lack of anti-tip tubes, but mentioned that he had ordered them, that he needed them, and that he considered installing the anti-tip tubes from the old wheelchair onto the new one, but that they did not fit due to differences in construction. *See* Mot. Summ J., Ex. A, Jeremy McSwain Dep. at 9-10 [Doc. # 63-2].

Despite noticing the differences between his new and old wheelchair and despite the warning on the cover of the Instruction Manual urging “BEFORE USING THIS WHEELCHAIR READ THIS ENTIRE MANUAL,” McSwain did not read the manual. McSwain testified that he saw the manual but decided that he did not need to read it since he had been operating a wheelchair for years. *See* Mot. Summ. J., Ex. C, Roy McSwain Dep. at 86-87, 89-90 [Doc. # 63-2]. Instead, McSwain got in the new wheelchair and began riding around his home. After about fifteen minutes, McSwain attempted to exit through the front door over the 1.25 inch threshold. When he tried to maneuver over this threshold, the chair tipped backwards, and McSwain hit and injured his head and shoulders on the floor. McSwain filed his complaint on June 20, 2008, against Defendants Quickie, Sunrise, and Planetmobility.com raising claims of negligence, gross negligence, breach of warranty, and products liability including failure to warn and defective design.

McSwain seeks to introduce the expert testimony of a mechanical engineer, Roger Link, to demonstrate that the wheelchair design was “inherently unstable” without anti-tip tubes, that this safety feature should come standard on Quickie wheelchairs, and that a warning regarding anti-tip tube use should have been placed directly on the chair instead of relying solely on warnings in the Instruction Manual. Sunrise seeks to exclude this testimony due to lack of

qualifications, lack of a factual basis to support his conclusions, and failure to follow reliable principles and methods.

II. STANDARD OF REVIEW

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.”

FED R. EVID. 702. “*Daubert* . . . assigned the trial court a gatekeeper role to ensure such testimony is both reliable and relevant.” *Hodges v. Mack Trucks, Inc.*, 474 F.3d 188, 194 (5th Cir. 2006) (citing *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993)). “This gate-keeping obligation applies to all types of expert testimony, not just scientific testimony.” *Pipitone v. Biomatrix, Inc.*, 288 F.3d 239, 244 (5th Cir. 2002) (citing *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999)).

“Many factors bear on the inquiry into the reliability of scientific and other expert testimony.” *Id.* In *Daubert*, the Supreme Court offered five non-exclusive factors that district courts may use in evaluating the reliability of expert testimony, including:

- (1) whether the expert’s theory can be or has been tested;
- (2) whether the theory has been subject to peer review and publication;
- (3) the known or potential rate of error of a technique or theory when applied;
- (4) the existence and maintenance of standards and controls; and
- (5) the degree to which the technique or theory has been generally accepted in the scientific community.

Moore v. Ashland Chem. Inc., 151 F.3d 269, 275 (5th Cir. 1998) (en banc). Subsequently, in *Kumho Tire Co.*, the Supreme Court noted that the *Daubert* analysis is “flexible,” and that “the factors identified in *Daubert* may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert’s particular expertise, and the subject of his testimony.” 526 U.S. at 150. The court’s responsibility is “to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Id.* at 152.

“Although the *Daubert* analysis is applied to ensure expert witnesses have employed reliable principles and methods in reaching their conclusions, the test does not judge the expert conclusions themselves.” *Guy v. Crown Equip. Corp.*, 394 F.3d 320, 325 (5th Cir. 2004). “[T]he trial court’s role . . . is not intended to serve as a replacement for the adversary system: ‘Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.’” *Primrose Operating Co. v. Nat’l Am. Ins. Co.*, 382 F.3d 546, 562 (5th Cir. 2004) (quoting *United States v. 14.38 Acres of Land*, 80 F.3d 1074, 1078 (5th Cir. 1996)). “As a general rule, questions relating to the bases and sources of an expert’s opinion affect the weight to be assigned that opinion rather than its admissibility and should be left for the jury’s consideration.” *United States v. 14.38 Acres of Land*, 80 F.3d 1074, 1077 (5th Cir. 1996) (quoting *Viterbo v. Dow Chem. Co.*, 826 F.2d 420, 422 (5th Cir. 1987). Nonetheless, “[t]he proponent of expert testimony . . . has the burden of showing that the testimony is reliable,” *United States v. Hicks*, 389 F.3d 514, 525 (5th Cir. 2004), and must establish the admissibility

requirements “by a preponderance of the evidence.” *United States v. Fullwood*, 342 F.3d 409, 412 (5th Cir. 2003).

III. APPLICATION AND ANALYSIS

A. Link’s Qualifications

Roger Link does have the requisite qualifications to testify as an expert in this case, with reservation. “A district court should refuse to allow an expert witness to testify if it finds that the witness is not qualified in a particular field or on a given subject.” *Wilson v. Woods*, 163 F.3d 935, 937 (5th Cir. 1999). Expert opinion testimony must “ ‘serve[] to inform the jury about affairs not within the understanding of the average man.’ ” *United States v. Moore*, 997 F.2d 55, 57 (5th Cir.1993).

Roger Link is a mechanical engineer with approximately 40 years of engineering experience. Since 1988, Link has worked as a Consulting Engineer doing forensic engineering work. Link’s job is to conduct safety analyses of consumer products and investigate accidents and losses. Link Dep. at 22-25 [Doc. # 72]. Link has a bachelor of science degree in mechanical engineering from Western Michigan University. He is a member of various professional engineering societies, including the American Society of Mechanical Engineers, American Society of Safety Engineers, National Fire Protection Association, and Society of Automotive Engineers. His CV lists two publications from 1979, but these publications are not relevant to the case at hand.¹ He is not a licensed professional engineer. Link Dep. at 9. In his career, he

¹The publications are aviation related: “In Service Composite Repair for the F-18 Airframe” and “Reduction of Thermal Stresses in Air Data Computer CP-1085/AS.”

has performed more than fifteen hundred product evaluations and has testified at approximately 75 trials as an expert in the field of mechanical engineering. *See* Link Dep. at 105 [Doc. # 69-6]; Link Aff. ¶ 2 [Doc. # 76]. He has been involved in one case involving a wheelchair, but he did not testify at trial and the issue was the cause of a weld failure on the chair that caused the chair to tip. Link Dep. at 10-12. He was also involved in two cases involving chairs that tipped over—one involving an office chair at Office Depot with a missing caster and one involving a chair at a slot machine. Link Dep. at 46-50.

Defendants complain that while Link may have engineering experience, he has no experience directly related to wheelchair design or function. His previous experience with wheelchairs is that he would get in them and “fiddle around” with them when he had a friend or family member with injuries requiring the use of a wheelchair and when he was at airports. Link Dep. at 33-37. He has had no training or education in wheelchair use, training, or design. Link Dep. at 64. He has not designed a wheelchair or worked for a wheelchair designer. Link Dep. at 39-42. He has no experience with wheelchair standards other than reading them in preparation of trial. Link Dep. at 51-53. He is unfamiliar with the training given to a person with spinal injuries who requires the use of a wheelchair. Link Dep. at 67. In sum, the debate centers on whether Link must be qualified specifically in wheelchair use and design, or if he is sufficiently qualified through his more general education and experience in mechanical engineering.

Link’s conclusions regarding the instability of the chair involve simple principles of physics that could be applied by anyone with a general science background and his personal observations of the wheelchair at issue. He is certainly qualified to test the angle at which the wheelchair can be tipped back before tipping over, and to explain how different factors, such as

the thickness of the seat cushion, the wheelbase measurement of the front and back tires, and whether the tires are hard or soft plastics, affects the center of gravity, the stability of the chair, and the propensity to tip. Link's testing of the Quickie chair is sufficiently reliable. Of course, Sunrise can challenge his conclusions and the basis for those conclusions through cross-examination or by presentation of its own experts, and the jury can determine the weight to be given to Link's testimony.

Link's lack of experience and knowledge of wheelchair use is troubling, however. For instance he concludes that anti-tip tubes should be standard, but he has no knowledge of the benefits of wheelchairs without anti-tip tubes and he relies on his own hypothesis, without the benefit of any experience or education in wheelchair use or training, that the vast majority of wheelchair users cannot do a wheelie at will.² The Court therefore reserves the right to limit

² In his deposition, Link states that he does not have specific data to support this conclusion, but that this conclusion is based on his "experience of people he has seen in wheelchairs," including his wife, his mother-in-law, his friends, and "other people that have broken their legs and had ACL damage or whatever it might be to their knees and have required a wheelchair." Link Dep. at 129. In his affidavit, Link clarifies the basis of this conclusion:

When concluding that the person who can do a wheelie at will is the exception, not the norm, I considered the wording in the manual. As written, the warning states, "Quickie recommends the use of anti-tip tubes; *On all chairs unless you are a skilled rider and can do a wheelie at will." It does not say, for example, use anti-tip tubes if you are an unskilled rider and cannot do a wheelie at will, implying that the ordinary user is doing wheelies and therefore does not need anti-tip tubes. Based on this alone, it appears that the person who can do a wheelie is in the minority.

Link Aff. ¶ 4. In other words. Link based his ultimate conclusion— anti-tip tubes should be standard— in part on a conclusion he reached based, not on science, but on the manual's semantics. There is no proof that Quickie employed this particular phrase based on the percentage of wheelchair-bound individuals who can do a wheelie at will. Perhaps they were acting with an abundance of caution. More importantly, the jury does not need the help of a mechanical engineer to infer that a manufacturer's recommendation to use a safety device leads

Link's testimony at trial to relevant matters that he is qualified to discuss as a mechanical engineer and that are outside the scope of the average juror's experience and knowledge.

B. Link's Opinions and Methodology

Link's amended report dated August 12, 2009, lists six conclusions based on his analysis and investigation.³ They are as follows:

1. The wheelchair is inherently unstable, and should not have been sold without anti-tip tubes to prevent rearward tip over.
2. The manufacturer was well aware of the propensity of the wheelchair to tip over rearwards.
3. Although the manufacturer recommends anti-tip tubes for all Quickie wheelchairs as a definite safety feature, they failed to supply anti-tip tubes with all Quickie wheelchairs.
4. The presence of anti-tip tubes on the subject wheelchair would have prevented it from tipping over rearwards and causing injury to Mr. McSwain.
5. At the time of the accident, Mr. McSwain was not doing anything abnormal or unforeseeable.
6. The manufacturer should have placed a warning on the wheelchair regarding the unsafe condition of using the wheelchair without anti-tip tubes.

Defs.' Mot. in Limine, Ex. B at 8 [Doc. # 61-2]. As an initial matter the Court notes that Link's "conclusions" numbered 2-5 are not expert conclusions at all, but rather the factual basis for his other conclusions, numbers 1 and 6. Conclusions 2, 3, and 4 are undisputed. Therefore, the Court will focus on Link's conclusions that 1) the chair is inherently unstable, 2) anti-tip tubes should come as standard equipment, and 3) warnings about anti-tip tube use should be on the wheelchair itself. Each conclusion is discussed below.

to the conclusion that the device should be standard.

³Link's previous report, dated March 2, 2009, was completed before he was able to test the actual wheelchair in question. The August report elaborates on the March report.

1. The Wheelchair is Inherently Unstable

To determine the stability of the chair in question, Link conducted an experiment to determine how far the front tires needed to lift off the ground before the chair would tip backwards. He compared his results with the manufacturer's test results. His report explains the effect of certain variables to the chair's propensity to tip, including the thickness of the seat cushion, the size and position of the rider, the material used in the tire construction, the position of the rear axle, and the size of the wheelbase. As a result of his experiment, he concluded that the chair would tip when the front tires were lifted approximately four inches off the floor. While Link could not possibly replicate the exact conditions of McSwain's accident, his analysis will be helpful to the jury to understanding and determining whether the Quickie wheelchair is sufficiently stable or not. Link's conclusion that it is not stable is the result of reliable methodology employing Link's professional experience and knowledge.

Defendants complain that Link's opinion is based on his "tentative feeling" and not on formal testing. In his report, Link does state that "[t]esting performed without anti-tip tubes in place resulted in a very tentative feeling that rear tip over may occur." Link's Report at 7. When pressed during his deposition, Link stated that he did not have that same tentative feeling when he "fiddled with" other wheelchairs that did not have anti-tip tubes. In his deposition, Link describes his experience with other wheelchairs as follows:

Q. Have you ever used a wheelchair?

A. I've been in numerous wheelchairs. I've never been disabled to have to use a wheelchair. I've had friends that had wheelchairs, I've tried numerous wheelchairs. You know, my mother-in-law had a wheelchair for several years and I would ride in it occasionally and do things. If there's a wheelchair at an airport for an example, I might get in it and fiddle around with it. Or if a friend or something had a broken leg or something where they were debilitated and they would have a wheelchair at their home for a month or two, I would have, you

know, been in wheelchairs and moved around in them and things such as that, but never an extended length of time.

Link Dep. at 24:1-15.

Q. When you've gotten in a wheelchair what have you done in a wheelchair?

A. I've gone, I've gone from room to room, wiggled around. I've actually had little races with people where you might, you know, race from the bedroom into the kitchen, around a table and back and things such as that. That's just something that I've done from time to time with various friends when we're over at a friend's house that's broken a leg and he's in the bed and we're just having fun. I've been over, you know, minor thresholds going from room to room.

Link Dep. at 35:11 - 36:1. Link admits in his deposition that his opinion about the stability of the Quickie chair in comparison to other chairs is based on his experience and not testing and evaluation.

Q. You said . . . you base this opinion on your experience. Your experience is what you described earlier about getting in your mother-in-law's wheelchair?

A. My wife's wheelchair, various wheelchairs and the fact that just in general from a design standpoint and from a safety standpoint that a wheelchair should not tip over while going over a threshold of approximately an inch.

Link Dep. 60:11-19.

Q. At the time you did this opinion, you had not done any study on the stability of wheelchairs, had you?

A. That's correct. I mean, I think I had seen the standards and things such as that, but I had not done any testing or evaluation from that standpoint.

...

I had prior to this time, prior to writing this report gotten in several other wheelchairs like at an airport or a hospital or a doctor's office, things such as that, to see how far approximately the wheelchairs— there again they were random wheelchairs— but how far you need to get the front wheel up off the ground before they would reach a tipping point. And it was considerably more than an inch.

...

Q. So you just sat in the wheelchairs?

A. Right, have somebody lean back and somebody is behind me holding the

wheelchair, and I was just getting an approximate feel for how far back a wheelchair needed to be tipped back.

Q. Did you document that in any way?

A. Not specifically at that time, no.

Q. Did you follow any particular protocols to do that?

A. Well, protocols, I mean, basically there again, it was just myself sitting in the wheelchair with a person behind me to make sure I wasn't going to tip over rearward and be injured and tip it back until I got to the approximate tipping point. There again, it was scientific from that standpoint. But there again, I wasn't going into a deep analysis as far as exactly how far the wheels got off the ground and things such as that, but it was an approximation.

Link Dep. at 61:7-63:9.

The Court finds that the expert's observations made during the use of the wheelchair at issue are relevant and helpful to the jury, particularly when coupled with data gathered through testing the actual chair and its tip propensity with and without the anti-tip tubes.⁴ However, Link has not employed formal testing, relying instead on personal experience, in determining the *relative* stability of other manufacturers' chairs absent anti-tip tubes, and so his "feelings" in relation to the other chairs is of questionable value. An expert may base his opinion on his own personal experiences, and Link is basing his conclusion in part on his admittedly limited experience with wheelchairs. The expert should, however, "employ in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." Here, Link did not apply the same rigor to his testing of the stability of other chairs as he applied to testing the stability of the Quickie chair at issue. The results of his testing cannot be reproduced and cannot be subject to peer review as recommended by *Daubert*. In fact, Link provides no

⁴The Plaintiff states, "[h]e also tested the chair with anti-tip tubes on it and thereby determined that the anti-tip tubes were in fact a safety component to prevent tipping and would have prevented the accident had they been on the wheelchair." Pl.'s Response at 10 [Doc. # 71]. This experiment is not discussed in Link's report. Regardless, the parties do not appear to dispute that anti-tip tubes prevent, or at least limit the potential of, tipping.

documentation in his report about which wheelchair models were tested. Therefore, Link's conclusion as to the instability of the Quickie chair will be allowed; however, his testimony regarding the *relative* instability of the chair will be excluded. As previously discussed, the limited nature of his experience with wheelchairs in general will certainly be fertile ground for cross-examination.

2. Anti-tip Tubes Should Be Standard Equipment

Link's next conclusion, that anti-tip tubes should be standard equipment on the Quickie LXI, is based on his conclusion that the chair was unstable, the fact that the anti-tip tubes would have prevented the rear tipping, and his assumption that because the majority of people "cannot do a 'wheelie' at will" the majority of users would require the anti-tip tubes per the manufacturer's instructions. Link also purportedly applied the "well accepted design criteria: if the hazard can't be designed out, then guard against it." Pl.'s Resp. at 13 [Doc. # 71]. In terms of a product liability claim, Link's alternative design is the Quickie wheelchair plus anti-tip tubes.

Defendants argue that Link is not qualified to offer his opinion that the chair with the anti-tip tubes is a feasible alternative design. "A feasible design alternative is a design that would have to a reasonable probability prevented the harm **without impairing the utility, usefulness, practicality, or desirability of the product of users or consumers.**" MISS. CODE. ANN § 11-1-63(f)(ii)(emphasis added). Defendants complain that Link cannot conclude that inclusion of the anti-tip tubes is a feasible alternative without knowledge of potential impairment

caused by the anti-tip tubes and the benefits of a wheelchair without them.⁵ Further, Defendants argue that Link lacks a proper factual basis for his conclusion since he has no data indicating that the majority of wheelchair users cannot do a wheelie at will.

Link cannot offer conclusions that have no logical connection to his expertise or to his methodology. *See Walker v. George Koch Sons, Inc.*, No. 2:07cv274KS-MTP, 2009 WL 837729 at *4 (S.D. Miss.)(March 27, 2009). Link is qualified to conduct experiments to determine the propensity of a wheelchair to tip over, discussed *supra*, and is qualified to testify as to the mechanical feasibility of including anti-tip tubes standard. However, his legal conclusion that standard anti-tip tubes are a *feasible* alternative design is not sufficiently related to his expertise and methodology. His mechanical engineering expertise has no connection to a conclusion that the addition of standard anti-tip tubes will not impair the wheelchair's "utility, usefulness, practicality, or desirability" for users. His methodology did not address any loss of functionality when the anti-tip tubes were installed. As a result, Link's conclusion that standard anti-tip tubes are a feasible alternative design will be excluded as his opinion lacks a proper foundation.

3. Warnings Should Be Affixed to the Chair Itself

Link concluded that the manual's warnings regarding the use of the wheelchair without

⁵Specifically, "Link has no knowledge, skill, experience, training, or education regarding (1) design of a wheelchair or the applicable design standards, (2) testing of wheelchairs or the applicable testing standards, (3) sales of wheelchairs or how particular models and accessories are usually chosen for the user, (4) the funding mechanism for payment of most wheelchairs and what is required for payment by third-party payors for accessories such as anti-tip tubes, (5) techniques for use of a wheelchair, (6) how most persons are trained to use their wheelchair, (7) development or preparation of wheelchair user manuals, or (8) the provision of health care for persons who use wheelchairs." Defs.' Rebuttal at 2 [Doc. # 75].

anti-tip tubes were not sufficient. Link opines that a warning placard should have been placed directly on the wheelchair. Link clarifies the basis for his opinion in his affidavit:

The facts I consider in rendering my opinion that a warning placard about the anti-tip tubes should have been place on the wheelchair itself are (1) there was no warning placard on the chair about anti-tip tubes; (2) the manufacturer knew tip over was enough of a hazard to mention it several times in the manual and provide more than one warning in the manual to use anti-tip tubes; (3) there was room on the chair for such a warning placard; and (4) the Defendant had used a different placard warning on the chair, and was thus knowledgeable about the feasibility and effectiveness of such warning placards.

Link Aff. ¶ 6 [Doc. # 76]. Plaintiff also argues that “[b]ased on his experience [with 1500 investigations, many of which involved warnings], he knows that a warning affixed to a product is more effective than a warning inside a manual.” Pl.’s Resp. at 17. The Court finds that no mechanical engineering skills were used by Link to reach his conclusions based on these facts. To reach the opposite conclusion– that a placard warning is unnecessary to sufficiently warn users– violates no engineering principles or laws of physics. Further the effectiveness of warnings on a product as opposed to in a manual is well within the grasp of jurors who have undoubtedly experienced both types of warnings in their daily lives. Therefore, Link’s opinion regarding the need for a placard warning should be excluded.

IV. CONCLUSION

For the reasons given above, the Court finds that Roger Link’s opinion testimony that the wheelchair is unstable is reliable and relevant to the case at hand and will be admitted at trial. Conversely, Link’s opinion testimony regarding whether the standard installation of anti-tip tubes is a feasible alternative design will be excluded. Finally, whether a warning placard should

be affixed to the chair is an opinion based on a non-scientific analysis of the facts in the case and are in no way related to Link's mechanical engineering expertise, and should therefore be excluded.

IT IS, THEREFORE, ORDERED AND ADJUDGED that Defendants' motion *in limine* to strike the expert opinions of Plaintiff's expert witness Roger Link [Doc. #61] is granted in part, denied and part, and the Court reserves judgment in part.

SO ORDERED AND ADJUDGED on this, the 14th day of January, 2010.

s/Keith Starrett

UNITED STATES DISTRICT JUDGE